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ABSTRACT

A total of 68 second- and fourth-graders participated in a study of children's expressiveness and encoding and decoding skills. They were chosen on the basis of their parents' self-reports of low or high expressiveness on the Family Expressiveness Questionnaire. In hour-long, videotaped interviews with their mothers, subjects sorted 25 cards depicting a variety of activities into piles according to the likeability of the activities. Subjects discussed the activities in two different ways. For a measure of baseline affect, they described the two most liked, two most neutral, and two most disliked activities, and why they felt the way they did about the activities. For a measure of encoding skill, they attempted to describe those activities in ways that did not reflect their real feelings about the activities. After being given the example of a child showing joy at receiving an unwanted gift from grandparents, children were asked to discuss both the liked and disliked items as if they were neutral (inhibition); the liked items as if they were disliked and vice versa (masking); and the neutral items as if they were liked and disliked (simulation). Findings revealed that children from both grades were fairly accurate in their attempts to inhibit, mask, and simulate both positive and negative affect. No main effects were found for sex, grade, or family expressiveness. (RH)

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Children's Facial Management of Affective Displays

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Although necessary on a daily basis for smooth social interaction in adulthood, control of affective expression appears to be acquired only gradually during development. Children are highly expressive in infancy, with frequent displays of intense positive and negative affect (Malatesta & Haviland, 1982), which gradually decrease in frequency over time. Children's abilities to intentionally modulate expressions may develop slowly, probably because of the cognitive sophistication necessary. For example, showing what you <u>don't</u> feel and not showing what you <u>do</u> feel requires children to be aware of the emotions they are actually feeling as well as those they ought to be showing they are feeling. The "ought" indicates a third property of the ability, an understanding of what is required in the social situation. This understanding of the display rules embedded in social situations begins to appear, or at least is effectively articulated, between the ages of 6 to 10 years (Saarni, 1979). During this period, children also increasingly recognize the possible disparity between the "appearance" of an emotional expression on someone's face and the emotional state he/she is experiencing internally. (Harris, Donnelly, Guz, & Pitt-Watson, 1986).

An understanding of display rules does not necessarily develop in synchrony with childrens' abilities to regulate their affective displays, however, and the ability to put that understanding to use by actually controlling affective displays may not develop with any degree of widespread success until the early elementary-school years (DePaulo & Jordan, 1982). Three major techniques for controlling affective facial expressions have been identified as: (1) simulation: showing feelings when you are experiencing none; (2) inhibition: appearing as you have no feelings when in fact you do; and (3) masking: showing feelings you are not experiencing in order to cover another feeling you are having (Ekman & Friesen, 1969; Shennum & Bugental, 1982).

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Although the development of children's understanding of display rules has been well-studied, the actual performance of affective control has not, perhaps because of the complex and time-intensive technical work required. The few studies in this area suggest that children develop the ability to control negative affect over the elementary school years, but are much less skilled at controlling positive affect. Shennum and Bugental (1982) found that 6- to 12-year-old children improved in their ability to control negative affect, but not in their skill at controlling positive affect. Even though Shennum & Bugental examined more than one type of affective control, they did not find any differences in children's ability to mask or inhibit. Thus, it appears that: (a) children do develop the skill of masking negative affect, but not positive affect during the elementary school years, and (b) affective control may need to be decomposed by type of affect (positive/negative) and type of skill (inhibition, simulation, and masking). It was hypothesized that older children would demonstrate greater encoding skills and that these skills would not be performed differently for boys and girls.

METHOD

Subjects

Sixty-eight second- and fourth-grade children (half of each sex) were chosen to participate in a study on children's expressiveness and encoding and decoding skills. They were chosen on the basis of their parents' self-reports of low or high expressiveness based on the Family Expressiveness Questionnaire (Halberstadt, 1986).

Procedure

These children participated with their mothers in a one-hour session involving a series of activities designed to assess children's and mothers' nonverbal behavior. For this particular task, children sorted 25 cards depicting a variety of activities into piles, according to the likeability of the activities ("like a lot" to "dislike a lot") and they discussed them in two different ways with the experimenter, while being unobtrusively videotaped.

For the baseline affect they described the two most liked, two most neutral, and two most disliked activities, and why they felt the way they did about the activities to the experimenter.

For encoding skill they attempted to describe those activities in ways that they did not feel, in order to assess their skill in inhibiting, simulating, and masking positive and negative emotion expression. The children were first given the general example of showing joy at receiving an unwanted gift from grandparents to avoid hurting their feelings. They then performed the three tasks in counter-balanced order:

inhibition: they were asked to discuss both the liked and disliked items as if they were neutral, or "so-so,"

masking: they were asked to discuss the liked items as if they were disliked, and vice versa, and

simulation: to discuss the neutral items as if they were liked and disliked.

In summary, 68 children had two items each for three baseline and six deception categories, summing to 18 items per child and 1224 items altogether.

Editing and Coding

Examination of 20 children's encoding indicated that mean item lengths were similar for baseline and encoding conditions; mean = 5.26 and 5.22 seconds for baseline and encoding segments, respectively. Three edited videotapes, approximately one hour each, were created. Each included 6 of each child's 18 items. Items were randomly chosen and ordered for each child and each tape had a different random ordering of children, however, a child's 6 items were edited onto the tapes in blocks.

Six male and six female college students rated all facial expressions (without sound) of all children on Likert scales ranging from "-4" (very negative) to "+4" (very positive) with "0" being neutral.

Reliability was very good (alpha = .93), and the 12 raters' judgments were averaged, making their estimates even more stable. Children's two items for each affect or encoding type were all intercorrelated at the .001 level or better (median r=.51) and so were summed together to create a positive, neutral, and negative score for baseline affect and six encoding scores.

RESULTS

Manipulation check

The ANOVA on spontaneous expression, with grade, sex, and family expressiveness as the between-subjects factors and baseline affect (positive, neutral, negative) as the repeated measure, revealed a main effect for affect ($F(2,118) = 8.27$, $p \leq .001$). Planned comparisons indicated that the positive baseline items were more positively rated than the neutral ($F(1,59) = 20.91$, $p \leq .001$) or negative baseline items ($F(1,59) = 10.01$, $p \leq .01$) but the neutral and negative baseline items were rated similarly (see Fig. 1). As shown in Table 1, the neutral baseline was rated near 0 ($M = .067$), as expected, but the negative baseline was more positively rated than expected ($M = .148$). These results are similar to those of Shennum (1981).

The lack of low negative ratings for negative affect may indicate (a) the effects of display rules causing children to be less expressive of negative affect they really feel, or (b) hesitation on the part of the raters to give negative ratings to children: it may be possible that we are socialized not to see negative affect as well as to not show it. No other effects were significant.

Encoding Skills

Following Shennum & Bugental (1982), we used a within-subjects comparison strategy. That is, we compared each child's encoding attempt to their initial affect (what the child actually expressed when initially describing the activity), and the target affect (the baseline expression of the affect the child was asked to show). For a child to be successful at encoding, his/her encoding attempt should be similar in positivity to the target affect but different from the initial affect. Repeated measures ANOVAs included grade, sex, and family expressiveness as the between subjects factors, and affect (initial affect, encoding affect, and target affect) as the repeated measure.

Inhibition. The ANOVA on inhibition of positive affect indicated a main effect for encoding ($F(2,118) = 14.65$, $p \leq .001$). In planned comparisons, children's attempts were significantly different from their positive baseline ($F(1,59) = 24.70$, $p \leq = .001$) but not from the neutral target affect ($F(1,59) \leq 1.00$), indicating successful inhibition

(see Fig. 2). For inhibition of negative affect, children's attempts were not significantly different from their neutral target baseline, but they also were not significantly different from the initial negative affect (see Fig. 3). Because the negative and neutral baselines were so similar, the success of this task is difficult to assess. No other main effects or interactions were significant.

Simulation. The ANOVA on simulation of positive affect indicated a main effect for encoding ($F(2,118) = 10.45$, $p \leq .001$). In planned comparisons, children's attempts were significantly different from their neutral baseline ($F(1,60) = 13.45$, $p \leq .001$), but not from their positive target affect ($F(1,59)$ $p \leq 1.00$), indicated successful simulation (see Fig. 4). For negative simulation, children's attempts were not significantly different from their negative target baseline, but they also were not significantly different from the initial neutral affect (see Fig. 5). Again, because the negative and neutral baselines are so similar, the success of this task is difficult to assess. No other main effects or interactions were significant.

Masking. The ANOVA on masking of positive and negative affect indicated a main effect for encoding ($Fs(2,118) = 10.75$ & 5.60, $ps \leq .001$ & $.01$, respectively). In planned comparisons, children's attempts at masking positive affect were significantly different from their positive baseline ($F(1,59) = 22.26$, $p \leq .001$), but not from their negative target affect ($F(1,60) \leq 12.44$, $p \leq .10$; see Fig. 6) and their attempts at masking negative affect were significantly different from their negative baseline ($F(1,60) = 6.78$, $p \leq .05$), but not from their positive target affect ($F(1,59) \leq 1.00$; see Fig. 7). Both sets of analyses indicated successful masking. No other main effects or interactions were significant.

DISCUSSION

Children from both second and fourth grade were fairly accurate in their attempts to inhibit, mask, and simulate both positive and negative affect. In fact, given the results of previous research, they were surprising accurate in their attempts to inhibit, mask, and simulate both positive and negative affect. Results, as depicted in the

Figures, indicate highly successful performances on the tasks. There were no main effects for sex, grade, and family expressiveness.

Although other studies have found that children's encoding skills improve with age (Morency & Krauss, 1982; Shennum & Bugental, 1982; Saarni, 1982; Feldman, Jenkins, & Popoola, 1979), we did not. It may be that the age difference in our study was not great enough; the subjects were second- and fourth-graders, whereas others (Morency & Krauss, 1982; Feldman, Jenkins, & Popoola, 1979; Shennum & Bugental, 1982) have had subjects with at least a four-grade difference. The ceiling effect, created by our subjects' substantial skill, may also have precluded finding any age differences.

The relatively positive ratings for the children's negative baseline (indicating low negative expressiveness), may be explained by the generally lower acceptance of expressing negative emotions compared to positive emotions in our culture. Children aged 5 to 11, produced negative expressions less accurately than positive expressions (Buck, 1975; Yarczower, Kilbridge, & Hill, 1979). Negative expressions are less accurate and less intense when the examiner is present and pressures to use display rules would be greater, compared to when the examiner is absent (Yarczower et al., 1979). In the present study, the children may have spontaneously applied display rules discouraging the expression of negative affect during the baseline expression condition and therefore inhibited their negative expression, leading to a relatively positive baseline for negative.

Although children can successfully simulate, inhibit, and mask their expressions in a laboratory setting, we do not yet know how effectively they use these skills in real settings where contextual cues may overpower their affective organization or their cognitive manipulation of facial displays. Now that we know that children have fairly sophisticated skills at managing their facial displays, we can begin examining where, when, and with whom they utilize skill.

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SIMULATING NEGATIVE EXPRESSION

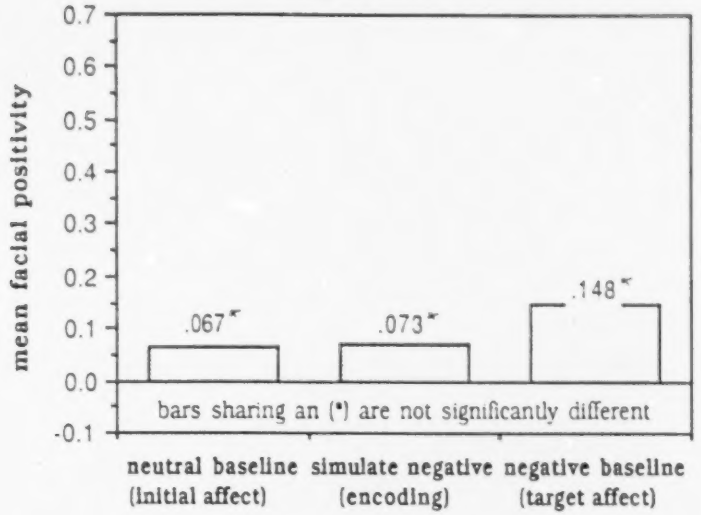

Figure 5

MASKING POSITIVE EXPRESSION

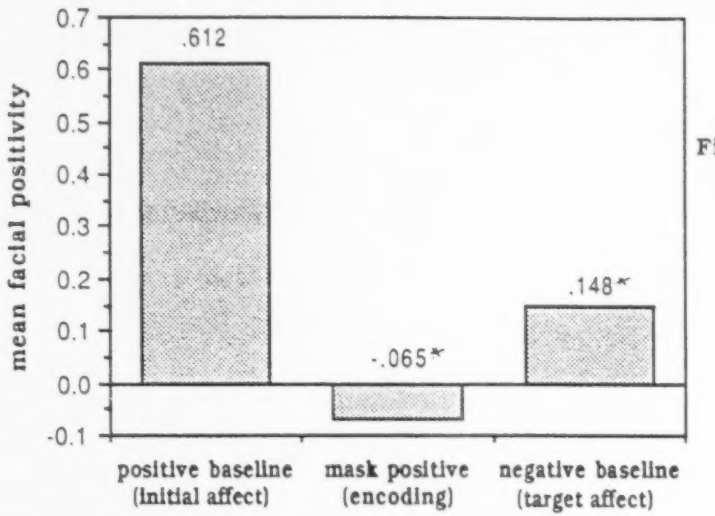

Figure 6

MASKING NEGATIVE EXPRESSION

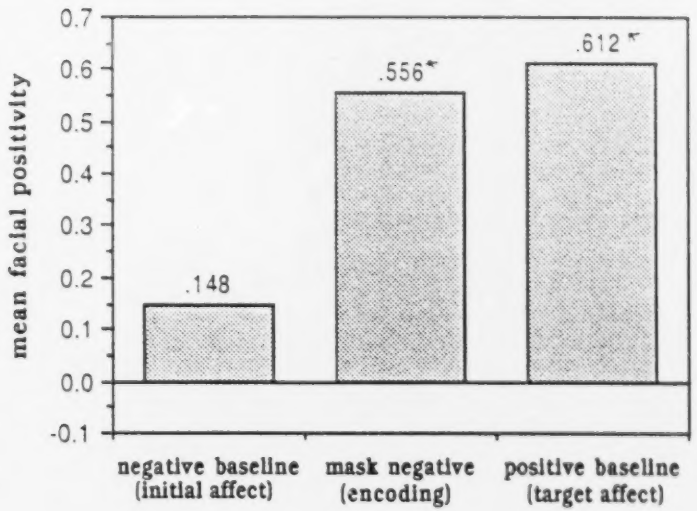

Figure 7

BASELINE FACIAL EXPRESSIONS

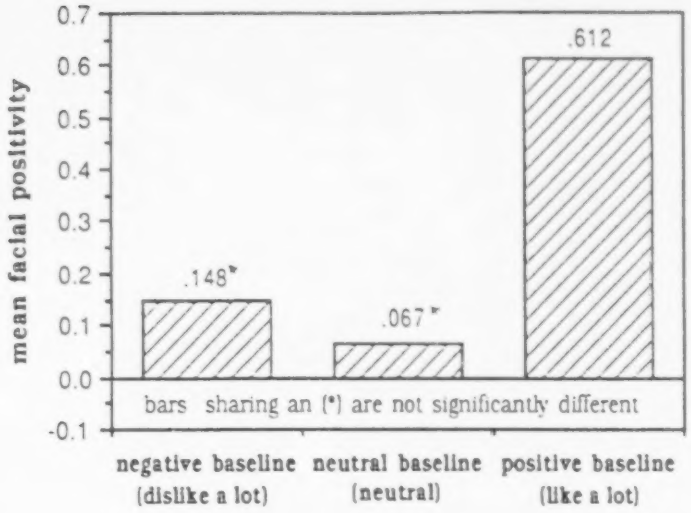

Figure 1

INHIBITING POSITIVE EXPRESSION

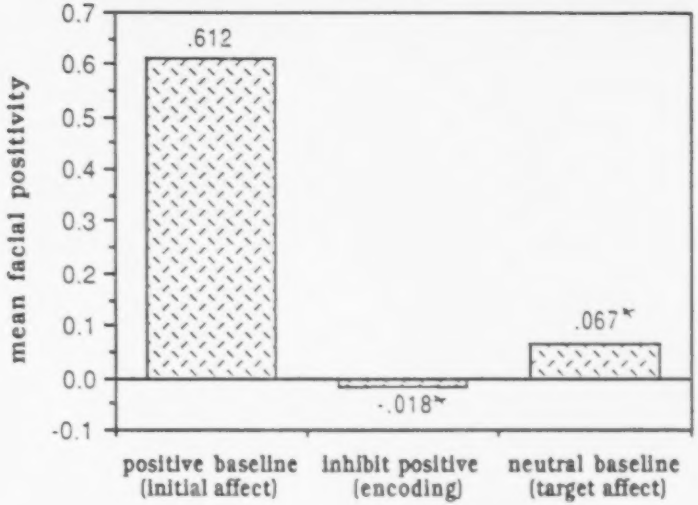

Figure 2

INHIBITING NEGATIVE EXPRESSION

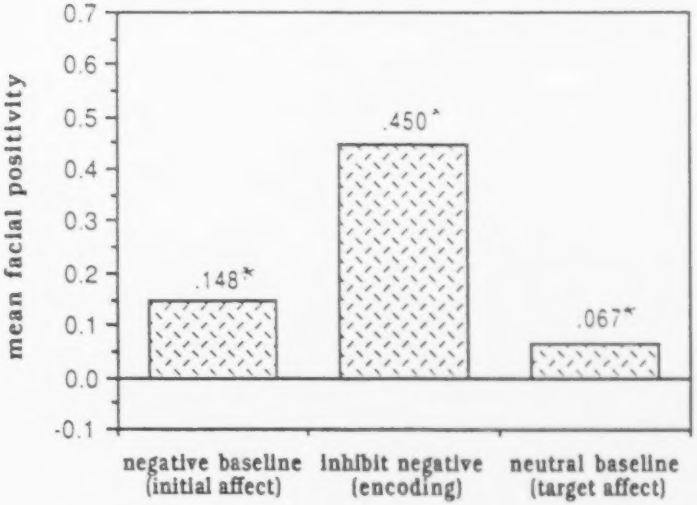

Figure 3

SIMULATING POSITIVE EXPRESSION

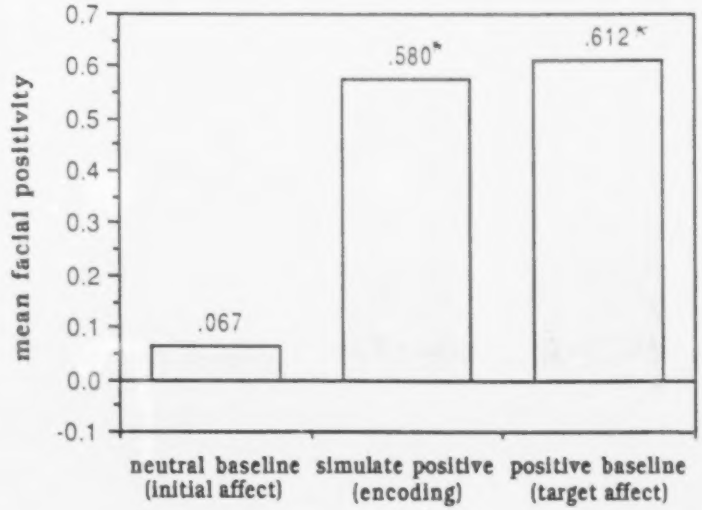

Figure 4